Primitive Data Stream 155 Receiver 8-051 2-051 150-1 105-4 145-4 145-1 145-3 Transm: Her primitive Data Stream

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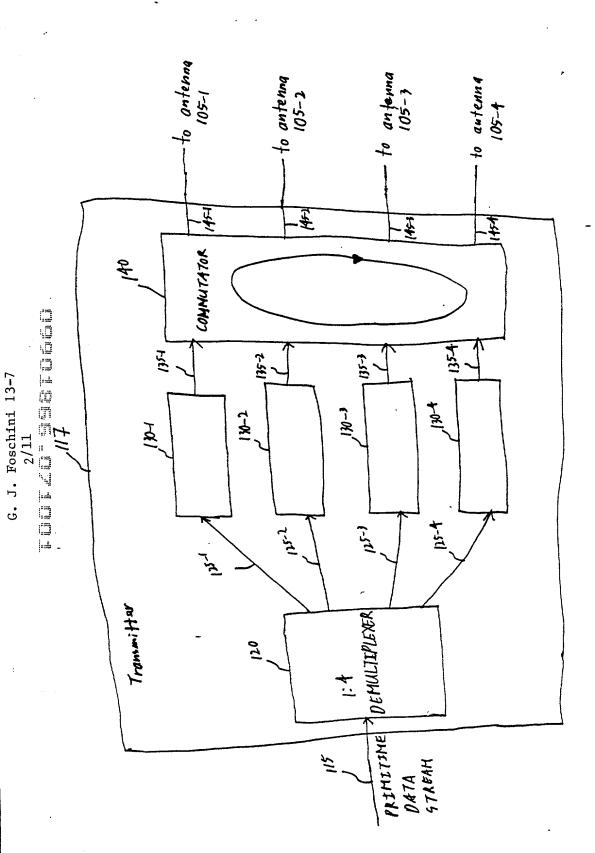
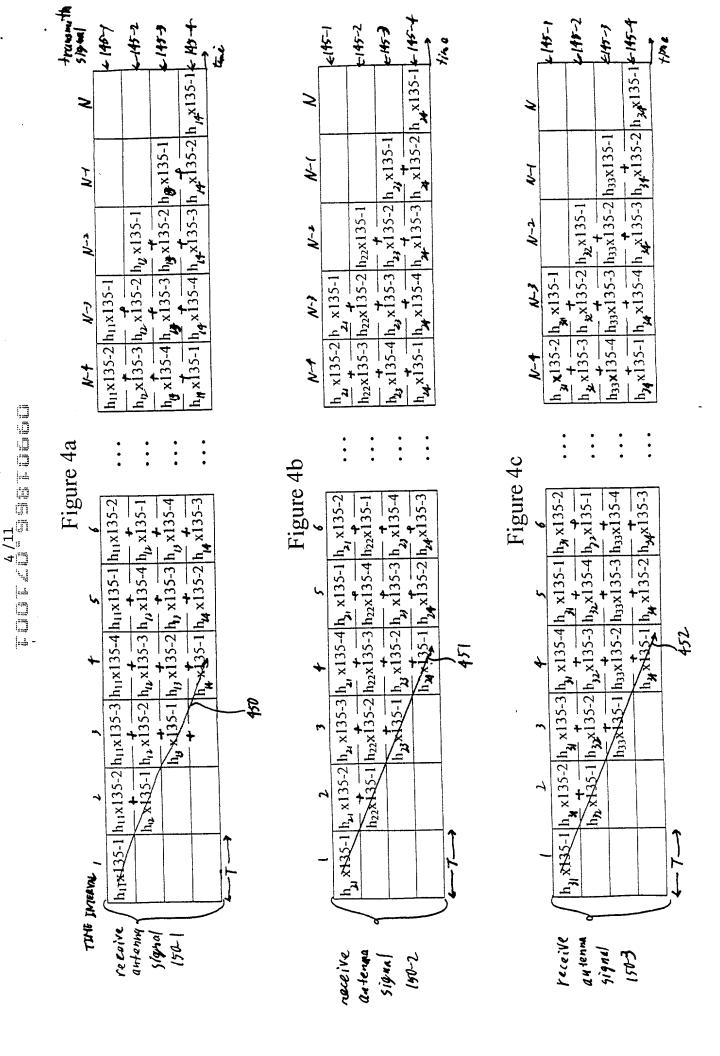


Figure 2

Figure 3

ANTEMNA	TEME		,	•	L	4		N-4	N-+ N-3 N-3	N-3	T N	2	N transmitted
OPER, WHICH	INTENIAL 1	7	6	+	\ \ 	>		0 200	135.1				£1654
THE STONE	1-85-1	7.55	135-3	135-4	135-1	135-2	•	7-661	1-661				
D TRAIN 105 -1		\ -						0 0 0	1760	125 1			4 165-2
		7	735-2	135-3	135-4	135-1	•	135-3	1-661 2-661	1-001			<u>.</u>
1-501	~	:/ 							1767	1257	135.1		1.45-3
:			74	735.7	135-3	135-3   135-4	•	155-4	155-4 155-5	133-2	1-771		
C-501	_		/							, , ,	1363	125.1	1.54
				78.5	73E	HS-2, 135-3	:	135-1	135-4	133-3	135-1 135-4 135-3 135-2 135-1	1-001	
1301	*			7	A								4
	1			350	358								

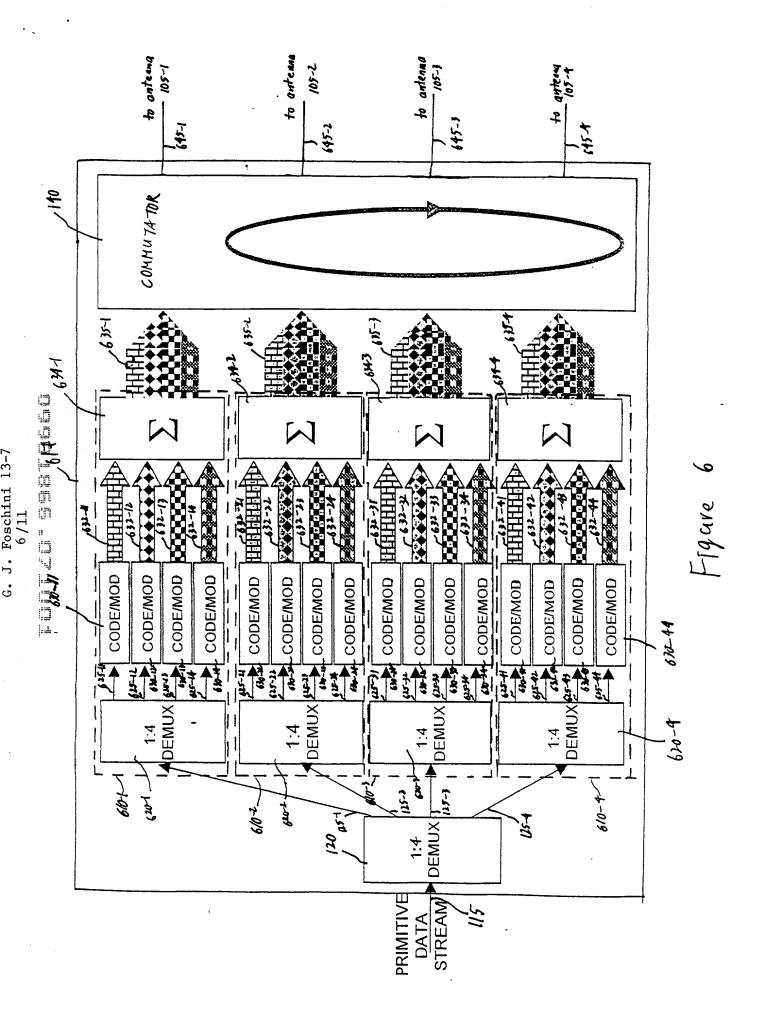


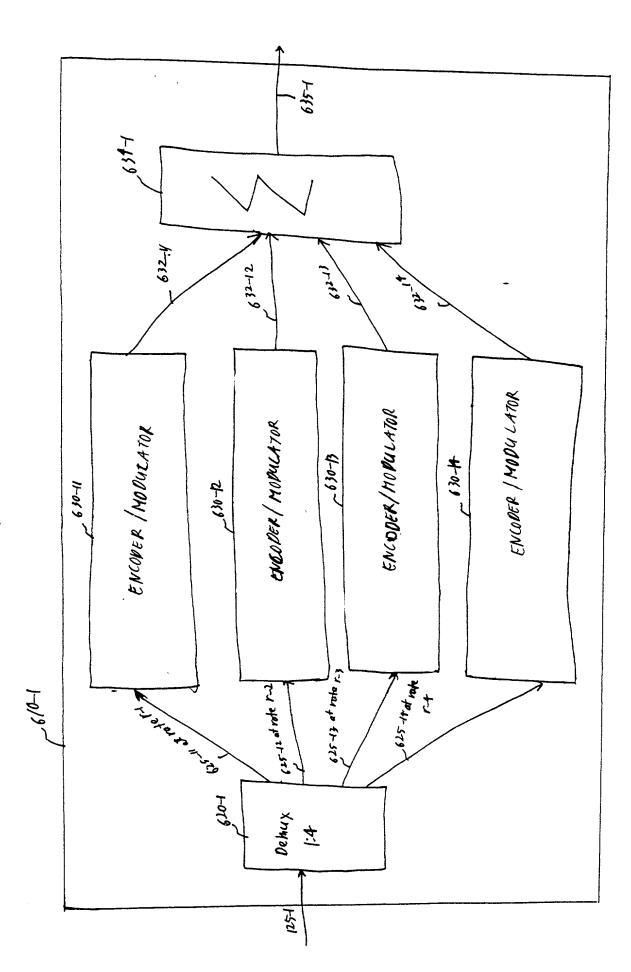
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Figure 5

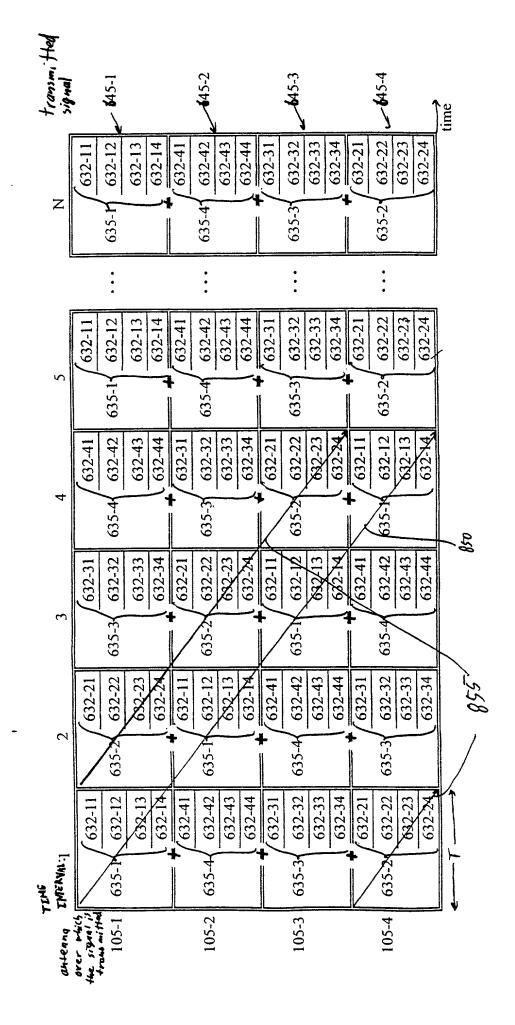
1xh <sub>11</sub> x135-1  receive auteuna signal  receive antenna	W <sub>21</sub> xh <sub>11</sub> x135-2   W <sub>31</sub> xh <sub>11</sub> x135-3   W   W <sub>21</sub> xh <sub>12</sub> x135-1   W <sub>31</sub> xh <sub>12</sub> x135-1   W   W <sub>22</sub> xh <sub>22</sub> x135-1   W <sub>32</sub> xh <sub>22</sub> x135-1   W   W <sub>22</sub> xh <sub>22</sub> x135-1   W <sub>32</sub> xh <sub>22</sub> x135-1   W   W <sub>22</sub> xh <sub>22</sub> x135-1   W <sub>32</sub> xh <sub>22</sub> x135-1   W   W <sub>23</sub> xh <sub>22</sub> x135-1   W <sub>32</sub> xh <sub>22</sub> x135-1   W   W <sub>23</sub> xh <sub>22</sub> x135-1   W <sub>33</sub> xh <sub>22</sub> x135-1   W   W <sub>23</sub> xh <sub>22</sub> x135-1   W <sub>33</sub> xh <sub>22</sub> x135-1   W   W <sub>23</sub> xh <sub>22</sub> x135-1   W <sub>33</sub> xh <sub>22</sub> x135-1   W   W <sub>23</sub> xh <sub>22</sub> x135-1   W <sub>23</sub> xh <sub>22</sub> x135-1   W <sub>23</sub> xh <sub>22</sub> x135-1   W   W <sub>23</sub> xh <sub>22</sub> x135-2   W <sub>23</sub> xh <sub>22</sub>		•	W	4
Wilkhik   135-1	With	E INTERVAL I	vh. v135-2	w31xh11x135-3	w41xh11x135-4
With the feet recipe antens Specifical   With With With With With With With With	With the receive antenna Signal   Storia   With the Wit	w11xh11x135-1	W2lXIIIAL3372	4	**************************************
Wishing   15-1   Wishing   15-2   Wish	Wighth   W		, w <sub>21</sub> xh <sub>12</sub> x135-1	w <sub>31</sub> xh <sub>12</sub> x135-2	C CCVZInvltw
Winding   Side	**************************************			w31xh13 x135-1	w <sub>41</sub> xh <sub>19</sub> x135-2
Hamily   H	Hamily   H				W41Xh14X135-1
w <sub>12</sub> xh <sub>2</sub> x       w <sub>12</sub> xh <sub>2</sub> x       w <sub>13</sub> xh <sub>2</sub> x       S <sub>1</sub> w <sub>13</sub> xh <sub>2</sub> x       w <sub>13</sub> xh <sub>2</sub> x       S <sub>1</sub>	W123Kby K135-1	weighted receive antenna signa		+	
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	Windly   Minkly   M	wxb.sx135-1	w <sub>22</sub> xh <sub>2</sub> x	w <sub>32</sub> xh <sub>21</sub> x135-3	w <sub>42</sub> xh <sub>21</sub> x135-4
$\frac{w_{13}xh_{13}x_{135-1}}{w_{13}xh_{14}x_{135-1}} = \frac{w_{13}xh_{13}x_{135-1}}{w_{13}xh_{14}x_{135-1}} = \frac{w_{13}xh_{13}x_{135-2}}{w_{13}xh_{14}x_{135-1}} = \frac{w_{13}xh_{14}x_{135-1}}{w_{13}xh_{14}x_{135-1}} = \frac{w_{13}xh_{14}x_{135-1}}{(w_{11}xh_{11} + w_{12}xh_{14} + w_{13}xh_{14})x_{135-1}} = \frac{w_{13}xh_{14}xh_{14} + w_{13}xh_{14}x_{135-1}}{(w_{11}xh_{11} + w_{12}xh_{14} + w_{13}xh_{14})x_{135-1}} = \frac{w_{13}xh_{14}xh_{14} + w_{13}xh_{14}xh_{14} + w_{13}xh_{14}xh_$	Wishing receive afterna signal 510-2	Anv71M	w <sub>22</sub> xh <sub>22</sub> x135-1	w <sub>32</sub> xh <sub>22</sub> x135-2	w <sub>42</sub> xh <sub>22</sub> x135-3
$\frac{\text{wayshyk135-1}}{\text{wayshyk135-2}} + \frac{\text{wayshyk135-3}}{\text{wayshyk135-3}} + \frac{\text{wayshyk135-3}}{\text{wayshyk135-3}} + \frac{\text{wayshyk135-4}}{\text{wayshyk135-3}} + \frac{\text{wayshyk135-3}}{\text{wayshyk135-3}} + \frac{\text{wayshyk135-3}}{\text{wayshyk135-2}} + \frac{\text{wayshyk135-3}}{\text{wayshyk135-2}} + \frac{\text{wayshyk135-3}}{\text{wayshyk135-2}} + \frac{\text{wayshyk135-3}}{\text{wayshyk135-2}} + \frac{\text{wayshyk135-3}}{\text{wayshyk135-3}} + \frac{\text{wayshyk135-3}}{wayshyk13$	$\frac{\text{wash}_{1}x^{135-1}}{\text{wash}_{2}x^{135-1}} + \frac{1}{\text{wash}_{2}x^{135-1}} + \frac{1}{\text{wash}_{2}x^{135-1$			w <sub>32</sub> xh <sub>23</sub> x135-1	w <sub>42</sub> xh <sub>23</sub> x135-2
$\frac{1}{\text{w_{13}}\text{h_{14}}\text{teff}} \frac{\text{receive}}{\text{q_14}\text{ens}} \frac{\text{g_16}\text{n_2}}{\text{s_15}\text{n_3}} \times 135-2 \\ \text{w_{13}}\text{h_{14}} \times 135-1 \\ \text{(w_{11}}\text{h_{11}} + w_{12}\text{h_{14}} + w_{12}$	$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$				w <sub>42</sub> xh <sub>24</sub> x135-1
$ \begin{array}{c ccccccccccccccccccccccccccccccccccc$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	antenna	1		-
$\frac{w_{33}xh_{3}^{2}x_{135-3}}{w_{43}xh_{31}x_{135-1}} = \frac{w_{33}xh_{31}x_{135-2}}{w_{43}xh_{31}x_{135-1}} = \frac{w_{43}xh_{31}x_{135-2}}{w_{43}xh_{31}x_{135-2}} = \frac{w_{43}xh_{31}x_{135-2}}{w_{43}xh_{31}x_{135-2}} = \frac{w_{43}xh_{31}x_{135-2}}{w_{43}xh_{31}x_{135-1}} = \frac{w_{43}xh_{31}x_{135-2}}{w_{43}xh_{31}x_{135-1}} = \frac{w_{43}xh_{31}x_{135-2}}{w_{43}xh_{31}x_{135-1}} = \frac{w_{43}xh_{31}x_{135-2}}{(w_{41}xh_{11} + w_{42}xh_{21} + w_{43}xh_{31})x_{135-1}} = \frac{(w_{41}xh_{11} + w_{42}xh_{21} + w_{43}xh_{31})x_{135-1}}{(w_{41}xh_{12} + w_{42}xh_{21} + w_{43}xh_{31})x_{135-1}} = \frac{(w_{41}xh_{11} + w_{42}xh_{21} + w_{43}xh_{31})x_{135-1}}{(w_{41}xh_{12} + w_{42}xh_{21} + w_{43}xh_{31})x_{135-1}} = \frac{(w_{41}xh_{11} + w_{42}xh_{21} + w_{43}xh_{31})x_{135-1}}{(w_{41}xh_{12} + w_{42}xh_{21} + w_{43}xh_{31})x_{135-1}} = \frac{(w_{41}xh_{11} + w_{42}xh_{21} + w_{43}xh_{31})x_{135-1}}{(w_{41}xh_{12} + w_{42}xh_{21} + w_$	$\frac{w_{33}xh_{34}}{w_{43}h_{44}} \times \frac{135-1}{w_{43}xh_{34}} \times \frac{w_{43}xh_{34}}{x^{135-1}} \times \frac{w_{43}xh_{34}}{w_{43}xh_{34}} \times \frac{135-2}{x^{135-2}} \times \frac{w_{43}xh_{34}}{w_{43}xh_{34}} \times \frac{w_{43}xh_{34}}{w_{43}xh_{34}} \times \frac{w_{43}xh_{34}}{w_{43}xh_{34}} \times \frac{w_{43}xh_{34}}{w_{43}xh_{34}} \times \frac{w_{43}xh_{34}}{w_{43}xh_{34}} \times \frac{w_{43}xh_{44}}{w_{43}xh_{44}} \times \frac{w_{43}xh_{44}}{w_{43}xh_{44}} \times \frac{w_{43}xh_{44}}{w_{43}xh_{44}} \times \frac{w_{43}xh_{44}}{w_{43}xh_{44}} \times \frac{w_{43}xh_{44}}{w_{43}xh_{44}} \times \frac{w_{43}xh_{44}}{w_{44}xh_{44}} \times \frac{w_{44}xh_{44}}{w_{44}xh_{44}} \times \frac{w_{44}xh_{44}}{w_{44}xh_{44}} \times \frac{w_{44}xh_{44}}{w_{44}xh_{44}} \times \frac{w_{44}xh_{44}}{w_{44}xh_{44}} \times \frac{w_{44}xh_{44}}{w_{44}xh_{44}} \times \frac{w_{44}xh_$	w <sub>13</sub> xh, x135-1	w <sub>23</sub> xh <sub>3</sub> x135-2	w <sub>33</sub> xh <sub>31</sub> x135-3	w <sub>43</sub> xh <sub>3</sub> x135-4
$\frac{w_{33}xh_{33}x135-1}{w_{41}xh_{11}+w_{12}xh_{21}+w_{22}xh_{21}+w_{23}xh_{31})x135-2} = \frac{w_{43}xh_{33}x135-1}{w_{43}xh_{31}+w_{42}xh_{21}+w_{43}xh_{31})x135-3} = \frac{w_{43}xh_{32}xh_{21}+w_{43}xh_{31}+w_{43}xh_{31}+w_{43}xh_{31})x135-3}{(w_{41}xh_{11}+w_{42}xh_{22}+w_{43}xh_{32})x135-3} = \frac{(w_{41}xh_{11}+w_{42}xh_{21}+w_{42}xh_{21}+w_{43}xh_{31})x135-3}{(w_{41}xh_{12}+w_{42}xh_{22}+w_{43}xh_{32})x135-3} = \frac{(w_{41}xh_{11}+w_{42}xh_{21}+w_{43}xh_{31})x135-3}{(w_{41}xh_{12}+w_{42}xh_{22}+w_{43}xh_{32})x135-3} = \frac{(w_{41}xh_{11}+w_{42}xh_{21}+w_{43}xh_{31})x135-3}{(w_{41}xh_{12}+w_{42}xh_{22}+w_{43}xh_{32})x135-3} = \frac{(w_{41}xh_{11}+w_{42}xh_{21}+w_{43}xh_{31})x135-3}{(w_{41}xh_{12}+w_{42}xh_{22}+w_{43}xh_{32})x135-3} = \frac{(w_{41}xh_{11}+w_{42}xh_{21}+w_{43}xh_{31})x135-3}{(w_{41}xh_{12}+w_{42}xh_{22}+w_{42}xh_{22}+w_{43}xh_{31})x135-3} = \frac{(w_{41}xh_{11}+w_{42}xh_{12}+w_{42}xh_{22}+w_{43}xh_{31})x135-3}{(w_{41}xh_{12}+w_{42}xh_{22}+w_{42}+w_{42}xh_{22}+w_{42}+w_{42}xh_{22}+w_{42}+w$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$	16	w <sub>23</sub> xh <sub>32</sub> x135-1	w <sub>33</sub> xh <sub>y</sub> x135-2	w <sub>43</sub> xh <sub>32</sub> x135-3
$ = \frac{w_{43}kh_{44}x135-1}{(w_{11}xh_{11}+w_{22}xh_{21}+w_{23}xh_{31})x135-2} = \frac{w_{43}kh_{44}x135-1}{(w_{41}xh_{11}+w_{42}xh_{21}+w_{43}xh_{31})x135-2} = \frac{(w_{41}xh_{11}+w_{42}xh_{21}+w_{43}xh_{31})x135-3}{(w_{41}xh_{11}+w_{42}xh_{21}+w_{43}xh_{31})x135-2} = \frac{(w_{41}xh_{11}+w_{42}xh_{21}+w_{43}xh_{31})x135-3}{(w_{41}xh_{12}+w_{42}xh_{21}+w_{43}xh_{31})x135-2} = \frac{(w_{41}xh_{11}+w_{42}xh_{21}+w_{43}xh_{31})x135-3}{(w_{41}xh_{12}+w_{42}xh_{21}+w_{43}xh_{31})x135-2} = \frac{(w_{41}xh_{11}+w_{42}xh_{21}+w_{43}xh_{31})x135-3}{(w_{41}xh_{41}+w_{42}xh_{21}+w_{43}xh_{31})x135-2} = \frac{(w_{41}xh_{11}+w_{42}xh_{21}+w_{43}xh_{31})x135-3}{(w_{41}xh_{41}+w_{42}xh_{21}+w_{43}xh_{31})x135-3} = \frac{(w_{41}xh_{41}+w_{42}xh_{31}+w_{43}xh_{31})x135-3}{(w_{41}xh_{41}+w_{42}xh_{31}+w_{43}xh_{31})x135-3} = \frac{(w_{41}xh_{41}+w_{42}xh_{31}+w_{43}xh_{31})x135-3}{(w_{41}xh_{41}+w_{42}xh_{41}+w_{42}xh_{31}+w_{43}xh_{31})x135-3} = \frac{(w_{41}xh_{41}+w_{42}xh_{31}+w_{43}xh_{$	$ \begin{array}{cccccccccccccccccccccccccccccccccccc$			w <sub>33</sub> xh <sub>33</sub> x135-1	w <sub>43</sub> xh <sub>33</sub> x135-2
$= \frac{1}{\sqrt{(w_{11}xh_{11} + w_{12}xh_{21} + w_{23}xh_{31})x135-2}} = \frac{1}{\sqrt{(w_{21}xh_{11} + w_{22}xh_{21} + w_{23}xh_{31})x135-3}} = \frac{1}{\sqrt{(w_{21}xh_{11} + w_{22}xh_{21} + w_{23}xh_{31})x135-3}} = \frac{1}{\sqrt{(w_{21}xh_{11} + w_{22}xh_{21} + w_{23}xh_{31})x135-3}} = \frac{1}{\sqrt{(w_{21}xh_{12} + w_{22}xh_{21} + w_{23}xh_{31})x135-3}} = \frac{1}{\sqrt{(w_{21}xh_{12} + w_{22}xh_{21} + w_{22}xh_{31})x135-3}} = \frac{1}{\sqrt{(w_{21}xh_{12} + w_{22}xh_{31} + w_{22}x$	$= \frac{1}{(w_{11}xh_{11} + w_{12}xh_{21} + w_{13}xh_{21})} = \frac{1}{(w_{11}xh_{11} + w_{12}xh_{21} + w_{12}xh_{21} + w_{13}xh_{21})} = \frac{1}{(w_{11}xh_{11} + w_{12}xh_{21} + w_{12}xh_{21$				w43xh4x135-1
$\frac{(w_{11}xh_{11} + w_{12}xh_{21} + w_{21}xh_{21} + w_{22}xh_{21} + w_{23}xh_{31})x135-2}{((w_{21}xh_{12} + w_{22}xh_{22} + w_{23}xh_{32})x135-1} \frac{4}{((w_{31}xh_{12} + w_{32}xh_{32} + w_{33}xh_{32})x135-2} \frac{4}{((w_{41}xh_{12} + w_{42}xh_{32} + w_{33}xh_{32})x135-2} \frac{4}{((w_{41}xh_{12} + w_{42}xh_{32} + w_{43}xh_{32})x135-1} \frac{4}{((w_{41}xh_{12} + w_{42}xh_{32} + w_{43}xh_{32})x135-1} \frac{4}{((w_{41}xh_{12} + w_{42}xh_{32} + w_{43}xh_{32})x135-1} \frac{4}{((w_{41}xh_{12} + w_{42}xh_{32} + w_{42}xh_{32} + w_{42}xh_{32})x135-1} \frac{4}{((w_{41}xh_{12} + w_{42}xh_{32} + w_{42}$	$ \frac{(w_{11}xh_{11} + w_{12}xh_{21} + w_{13}xh_{21}) \times 135 - 1}{(w_{21}xh_{12} + w_{22}xh_{22} + w_{23}xh_{21}) \times 135 - 2}{(w_{21}xh_{12} + w_{22}xh_{22} + w_{23}xh_{22}) \times 135 - 1}{(w_{31}xh_{22} + w_{32}xh_{22} + w_{32}xh_{22} + w_{32}xh_{22}) \times 135 - 2}{(w_{41}xh_{12} + w_{42}xh_{22} + w_{42}xh_{22}) \times 135 - 1}{(w_{41}xh_{12} + w_{42}xh_{22} + w_{42}xh_{22}) \times 135 - 1}{(w_{41}xh_{12} + w_{42}xh_{22} + w_{42}xh_{22}) \times 135 - 1}{(w_{41}xh_{12} + w_{42}xh_{22} + w_{42}xh_{22} + w_{42}xh_{22}) \times 135 - 1}{(w_{41}xh_{12} + w_{42}xh_{22} + $	receive antenna	13hal 510-3	11	
$\frac{(w_{21}xh_{12} + w_{22}xh_{24} + w_{32}xh_{24} + w_{32}xh_{24} + w_{33}xh_{32})x135-2 (w_{41}xh_{12} + w_{42}xh_{24} + w_{43}xh_{32})x135-2 (w_{41}xh_{12} + w_{42}xh_{24} + w_{43}xh_{34})x135}{(w_{41}xh_{12} + w_{42}xh_{24} + w_{42}xh_{24} + w_{42}xh_{24})x135}$	$ \frac{(w_{11}xh_{12} + w_{22}xh_{24} + w_{32}xh_{24} + w_{42}xh_{24} + w_{42}xh$		$-1 \left[ (w_2)xh_{11} + w_{22}xh_{21} + w_{23}xh_{31} \right] \times 135-2$	$(w_{31}xh_{11} + w_{32}xh_{2} + w_{33}xh_{31})x135$	$\frac{(w_{41}xh_{11}+w_{42}xh_{21}+w_{43}xh_{31})x135-}{t}$
$\frac{(w_{31}xh_{32}+w_{32}xh_{32}+w_{32}xh_{32}+w_{41}xh_{13}+w_{42}xh_{23}+w_{42}xh_{23}+w_{43}xh_{32}+w_{43}xh_{32}+w_{42}+w_{42}xh_{32}+w_{4$	contined	(Karrin Hirvilm)	(W21XII. + W77XHm + W21Xh, 1X135-1	$(w_{31}xh_{22} + w_{32}xh_{32} + w_{33}xh_{33})x135$	$2 \left( (w_{41}xh_{\mu} + w_{42}xh_{22} + w_{43}xh_{32}) \times 135 \right)$
(w41xh + W42xh + w42xh + W41xh)	Conbined			(w31xhy + w32xh + w31xh33)x135-	$1 \left( w_{41} x h_{ij} + w_{42} x h_{2j} + w_{43} x h_{3j} \right) \times 135$
	contined				(W41Xh + W12Xh + W13Xh X )X 135-
	Conbined		00-4		





G. J. Foschini 13-7 8/11 F. H. H. F. H. S. S. S. F. D. E. E. E.

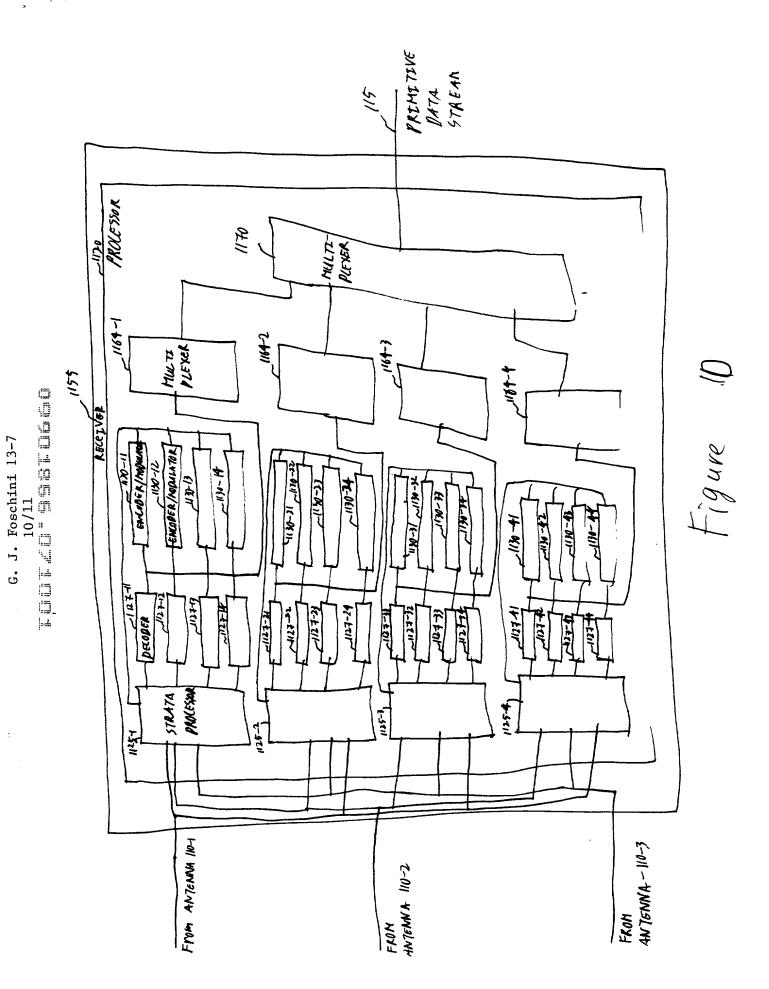
Figure 8



G. J. Foschini 13-7 9 /11

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H21	TEME WIERWA	~	Figi	Figure 9a ♣	h		*	transhitu
receive	h17x635-1	h <sub>11</sub> x635-2	h <sub>11</sub> x635-3	h <sub>11</sub> x635-4	h <sub>11</sub> x635-1	:	h <sub>11</sub> x635-1	4645-1
antenne	h <sub>12</sub> x635-4	h,*635-1	h <sub>12</sub> x635-2	h x635-3	h, x635-4	•	h <sub>u</sub> x635-4	£615-2
Sightl a	h <sub>13</sub> x635-3	' h <sub>13</sub> x635-4	h_x635-1	h <sub>p</sub> x635-2	h, x635-3	:	h <sub>b</sub> x635-3	8-549-3
	h 4x635-2	h <sub>10</sub> x635-3	h x635-4	h_x635-1	h, x635-2	•	h,4x635-2	+645+
	(			ash		J 1		time
THE	THE ENTERMY	,	Figure 9b	s 96	r		,	
roceive	1-5E9×-7	h <sub>2</sub> ,x635-2	h,x635-3	h <sub>21</sub> x635-4	h <sub>4</sub> x635-1	:	h, x635-1	k6#-1
antenna d	h <sub>22</sub> x635-4	h <sub>22</sub> x635-1	h <sub>22</sub> x635-2	h <sub>22</sub> x635-3	h <sub>22</sub> x635-4	•	h <sub>22</sub> x635-4	4615-2
Signal Lange	h, x635-3	h <sub>2</sub> x635-4	h <sub>21</sub> x635-1	h <sub>21</sub> x635-2	h23x635-3	•	h <sub>24</sub> x635-3	(-548-7
	h_x635-2	h <sub>x</sub> x635-3	h x635-4	h x635-1	h x635-2	•	h <sub>24</sub> x635-2	£615-t
•				451		1		time
ţ			Figure 9c	o 6 c			,	
raceive	DATER VAL 1	<b>2</b>	<b>3</b>	₩ ×635_4	5 h x635-1		h x635-1	F 648-1
antenna	1-759x1611	13 KO29-2	131 C-SCON 1811	1 CCOX 161	h x635-4	•	h x635-4	7-549-7
150-3	h <b>x</b> x033-4	1-ZEOX 4	2-CCOV <sup>n</sup> → 1 × 1 × 1 × 1 × 1 × 1 × 1 × 1 × 1 × 1	132 C 2027	12 p	:	72 1 hav635-3	6-54.9-3
	h <sub>33</sub> x635-3	h <sub>33</sub> x635-4	133*6425-1	n₃₃xo₃ɔ-∠	1133X022-3	•	1133X02-5	
	h, x635-2	h,x635-3	h <sub>2</sub> x635-4	1-559*-1	h <sub>*</sub> x635-2		hyx635-2	4647



1-589 F\$69 6 32.41' at poor 632.41 672-17 at power 11-7/11 11-4171 (FIM) MULTIPLIER MULTIPLIER HULTURIER MULTEPLA **\*** 4-017 1010 74-01-0 JE-01 21 ENCOPER/HODYLA TOR ENCOPER/MOCULATOR ENOWER/MODULATOR encoder/Modulator ,1-0/9 711-509 11-50 H-519 Dehux 1.4 1254

6. J. Foschini 13-/ 11/11 Fuit CPAPE Viel